

## TO STAY THE PESTILENCE.

### DR. CARMONA'S METHOD OF INOCULATION.

A United States Medical Commission  
Ordered to Report on Its Efficacy  
—Dr. Held's Success.

Washington special to the New York Herald: The subcommittee appointed by the Senate Committee on Epidemic Diseases and the House Committee on Commerce have decided to report favorably a bill providing for the appointment of a committee to investigate the cause and prevention of yellow fever, and, in part, carry out the preventive methods devised by Dr. Carmona in Mexico and by Dr. Freire in Brazil. This conclusion has been reached at the instance of expert medical men—Dr. Holt, Toner, Hamilton, Billings, Githon and Walcott among others—who have been present at recent sessions of the subcommittee and have given evidence in the case.

PROTECTION AS A NATIONAL MEASURE.

The happiness of the best talent in the country to protect the people against a recurrence of this epidemic has been clearly shown and frankly confessed. It has been shown also how the interruption of commerce thus occasioned affects points far removed from the seat of attack, and that the protection sought is not a local but a national issue. The extent of the yellow fever region in this country is clearly shown by a map prepared by Dr. Toner. It will be seen that the pestilence has moved from Brownsville to Quebec, and from Tampa to Cincinnati and St. Louis. Dr. Toner states that the great cities of the country are especially exposed to its ravages, and that the rapid transit now afforded by the interlacing lines of railway may carry it to any part of the country next summer. Under these circumstances the chief end in view of the proposed commission—the investigation of the method of Carmona—becomes of general interest. Who is Carmona, and what did he do?

#### THE CARMONA METHOD OF INOCULATION.

Dr. Manuel Carmona y Valle is the senior professor of clinical medicine in the Mexican Medical College. His germ theory and his practical results are most explicitly set forth in a recent publication of his lectures and hospital notes, upon which the following remarks are based. Unlike Freire in Brazil, he does not follow in the footsteps of Pasteur, but he has been pursuing a course of original investigation on a parallel line. For the past twelve years he has been intensely engaged in this chosen work, and now speaks with the authority derived from close observation, long continued laboratory experiments and actual tests in the yellow fever region. Whether right or wrong, his conclusions deserve careful examination. He sets out with the determination of certain granulations, which must not be confounded, as he states, with the characteristic bacteria of putrefaction. They are the spores, or seeds, of a microscopic mushroom, which by color in an animal organization form a yellow peronospora (*Peronospora Lutea*), the generating cause of the yellow fever, as he asserts. He distinguishes these granulations from the bacteria of putrefaction by their characteristic transformations, which have never been noted in other bacteria. The bacteria of putrefaction are destroyed by contact with oxygen, as demonstrated by Pasteur. The spores of Carmona retain their vitality unimpaired in oxygen or in atmospheric air.

#### NOT THE PASTEUR MICROBES.

They differ from the microbes noted by Pasteur in that they will not reproduce themselves in sterilized liquids, and therefore the attenuated inocula of Pasteur, based on the complete isolation of the microbe, are not applicable to the yellow fever epidemic. They are found in myriads, it is alleged, in the blood, urine, vomit and other excretions of yellow fever patients, and retain their vitality after the death of the victims. It is in the urine, however, that they can be most readily detected and isolated. Viewed under a powerful microscope, these granulations appear as spores 4-1000 of a millimeter in diameter, opaque, yellowish by reflected light and yellowish by refraction. These spores, if allowed to develop in urine or elsewhere, always produce microscopic mushrooms in the form of little tubes branching into filaments. So plentiful are they in yellow fever urine that Dr. Silva Araujo (Brazil) detects them by the terms "use variable forest de tubes," or branches of a microscopic vegetable. From the filaments of these tubes spring little spores 4-1000 of a millimeter, transparent and whitish (blanchâtre). These little spores have the property of rapid movement on occasion, and, in their resemblance to little animals, are called zoospores. By union in the animal organism these zoospore granulations, the fruit of the mushroom (*mycelium*), become peronosporae, two zoospores melting into one peronospora, so to speak, and this peronospora being the final *Peronospora Lutea*.

#### CLASSIFICATION OF THE DISEASE.

In the classification of this microphyte Carmona follows the division marked by Dr. Berillon in his Dictionnaire Encyclopédique des Sciences Médicales de Décembre:

Ch. mycelium.

Sarcode. Ascaride.

Parasporae. Acomycetes.

(Parasporae Lutea.)

From the yellow peronospora springs a fruit of its "zoogenic distinction," a great multitude of zoospores.

These zoospores must be very carefully distinguished from the zoospores, the fruit of the zoospore (mycelium), for on this distinction is based Carmona's theory of inoculation as a preventive of the fever.

He claims to have determined by a series of carefully conducted experiments:

(1) That the yellow peronospora always appears in yellow fever urine and in no other urine.

(2) That its presence explains the different symptoms and modifications of this fever, which can be accounted for in no other way.

(3) That the origin of the renal causus by aggregation of the microbe accounts for the diminution and even stoppage of the urinary excretion.

(4) That the yellow color of the flesh of the patient.

(5) The deepening of the yellow tint after death.

(6) The marked tendency toward the occurrence of hemorrhages. This is explained by the diminution of the salts of potassium in the animal organism, seeing that the zoospores are

## A SICKENING SPECTACLE.

### TERRIBLE ATTEMPT ON HUMAN LIFE AT EAST ST. LOUIS.

Six Men Imprisoned in a Cage of Fire and Seriously Burned.

#### STILL GROWING IN THE RARE.

The more zoospores there are in the body of a patient the more difficult the disease to combat. Therefore the physicians have attempted to master the fever in two ways—(1) by diminishing the number of parasites; (2) by destroying them. Parasites, diatoms and acedimic have been used without effect, but, as Carmona declares, without success. In this declaration he is supported by the testimony of Dr. Holt, Billings, Toner and other recognized authorities.

"Gentlemen," said Dr. Holt, with marked emphasis, to the subcommittee of the Senate, "we have been fighting this fever with every remedy known to the world for hundreds of years. I say to you to-day that we have not advanced a hair's breadth during the last sixty years, in a life of the bear of the continent. We are still groping in the dark and falling back, as the best resource, on the old Creole remedy of castor oil and hot water. When a certain number of persons are attacked a certain percentage will inevitably die, varying only in proportion to the malignancy of the epidemic. These were frank and bold statements, but they were confirmed on appeal to Dr. Hamilton, Toner and Billings, who were present.

It is generally conceded that the zoospores cannot be eliminated from the human body by any agency which would not at the same time destroy the life of the patient.

#### A REMEDY WHOLLY ATTEMPTED.

How, then, can the lives of men in the yellow fever region be protected? Carmona answers, "By my method of inoculation." The difference between the zoospore and the zoospore is that the zoospore is a microscopic mushroom which by union develops the deadly peronospora and symptoms of yellow fever. The fruit of the peronospora itself, or zoospore so-called, will not directly develop the peronospora. Therefore it is the zoospore which Carmona is the material for his inoculation. The safety of the operation depends on the fact that the "inoculated" zoospores are incapable of producing the yellow fever, since, between the zoospore and the "mucous" mushroom growth from the spore there is at all events a condition which has not been taken place. The material so chosen is prepared by carefully isolating and drying the zoospores of the peronospora lutea. The dried product is then mixed and dissolved in distilled water and an injection made under the skin of the forearm with a Pravaz syringe.

#### EFFECT OF THE INOCULATION.

"The results of this inoculation have varied," says Carmona, "but never has any serious ill consequence followed." The first person so inoculated was Carmona himself on September 29, 1881. "I felt an accession of heat in my veins at the moment of injection, continuing for some seconds. Then it suddenly departed, giving place to a slight swelling, not discoloring the skin, though impeding a little the movements of the arm. On the fourth day following all signs of swelling had disappeared, and I noted meanwhile no febrile condition of the system. The urine discharged was perhaps a little more abundant and tinged slightly with red."

#### YELLOW FEVER RESISTED.

The inoculated persons were afterwards exposed to the attack of the epidemic fever in many places, and the results of exposure may be briefly summarized: Of the first 338 persons inoculated not one was attacked by the fever. Of the next 532 twenty-six were attacked, who formed a part of the garrison of 380 men stationed at Vera Cruz. The 380 men of the original garrison were inoculated, but the garrison was reduced later by the addition of 174 men not inoculated. The yellow fever epidemic was intense in the city of Vera Cruz for six months. Thirty-two per cent of the men not inoculated were attacked, but only seven per cent of those inoculated. Dr. Carmona attributes the twenty-six failures to inoculation to one of two causes: (1) That the men had not received into their systems a sufficient quantity of zoospores necessary for saturation to the protected point; or (2) the fact that the zoospores used in inoculation were simply dried and not properly "mashed" from albumen by heat or alcohol.

He enforces this conclusion by citing two test cases, where the material used in inoculation had been more carefully prepared. At Mazatlan, of employees of the custom-house, four were inoculated. The ten were also exposed to attack. The six men inoculated were attacked and died. The four inoculated soldiers were not affected by the fever at all.

The second case is still more noteworthy. Seventy-six soldiers were carefully inoculated with inoculated zoospore material in the City of Mexico. During the summer these men descended to Vera Cruz on their way to Acapulco. Francisco Gonzalez joined them and remained with them six days at Vera Cruz during the epidemic. On the arrival of the detachment at Acapulco Gonzalez was found to be sick with yellow fever, and died in the course of a few days. He alone of the detachment had not been inoculated. His seven typhoid companions were not attacked at all. Dr. Carmona is led by his experiments to conclude that a temporary febrile condition is a characteristic evidence and guarantee of a successful inoculation and of the proper saturation of the system. He deems it essential also that his inocula should have time to produce its characteristic effect before the person operated upon is exposed to the epidemic. The inoculation should, therefore, be made during the months when the fever does not prevail.

#### A SYSTEM OF COAST DEFENSE.

Whether the preventive method is really of value or not can probably be demonstrated by the proposed commission. If the microbe theory of yellow fever is conceded, however, one thing is certain. These deadly mushrooms, which are so hard to kill and so easily scattered broadcast by the wind, the sea or any moving body, are far more formidable than the troops and fleets of any European power. To protect the country from the inroads of these pests would be a proper scheme of coast defense.

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## A SICKENING SPECTACLE.

### TERRIBLE ATTEMPT ON HUMAN LIFE AT EAST ST. LOUIS.

Six Men Imprisoned in a Cage of Fire and Seriously Burned.

#### ST. LOUIS, Mo., February 5.—A terrible

tempt upon human life and in keeping with the reputation of East St. Louis was perpetrated last evening. Shortly after 11 o'clock a burst of flame, enveloping a shanty near the railroad track, was discovered. As the flames were discovered those who ran to the spot heard the most heart-rending screams and cries, and it was known that human beings were imprisoned in a cage of fire. There was no one near the house at the time but the glare of light that illumined the darkness attracted the attention of all the railroad men that happened to be out. They ran toward the place, and as they did they heard the most shrieking and piercing cries, moans and cries, telling that human beings were held there in the fiery cage unable to escape. There was a rush to the door and it was forced in, when two men staggered out, their faces burning about and their clothes ablaze. Other men were taken out unconscious. The spectacle was one to be long remembered by all who witnessed it. The victims, as they came out were seized, by rough but friendly hands, and rolled about on the ground in the snow. The light from the burning shanty was so bright that the things and people in the vicinity were one of the old priests of battles. The faces of the victims were blackened and long strips of flesh peeled off, presenting a horrible sight, such as only burned flesh can, the unfortunate were taken to the Relay depot, where they were attended to by three or six men in all taken out of the building, and when they got together in the Relay depot their moans and groans made music that would make any one

#### TRIMMER AND SHIVER WITH HORROR.

During the brief intervals that they forgot their burns and pains they told how the fire originated. They had strolled in one by one to the shanty in order to warm up, and were sitting around the stove talking when suddenly the stove seemed to burst open and the flames were all about them, enveloping the men before they could turn toward the door. They could only beat about with their hands and struggle with each other in an endeavor to get to the exit. They grappled with each other and this impeded their escape, and it seemed an eternity before they heard the cries of those who came to the rescue. They remembered very distinctly that they smelled coal oil as the flames burst out around them. The fire was either the result of a practical joke or of a deliberate attack upon the lives of these men, who seemed an eternity before they heard the cries of those who came to the rescue. They remembered very distinctly that they smelled coal oil as the flames burst out around them. The fire was either the result of a practical joke or of a deliberate attack upon the lives of these men, who seemed an eternity before they heard the cries of those who came to the rescue. They remembered very distinctly that they smelled coal oil as the flames burst out around them.

#### FOUR OIL DOWN THE CHIMNEY

into the stove. It is said that the man who did the deed is known, as he had a grudge against one of the men and declared that recently that he would get even if it took him years to do it. Near the back of the shanty, on the ground, was found a can that evidently had contained coal oil. Some of the railroad men who ran to the scene of the imprisoned victims said that the light of the blazing shanty disclosed to them the figure of a man beating a hasty retreat from the vicinity, but they did not know at the time of the horrible circumstances. Some of the railroad men who ran to the scene of the imprisoned victims said that the light of the blazing shanty disclosed to them the figure of a man beating a hasty retreat from the vicinity, but they did not know at the time of the horrible circumstances. Some of the railroad men who ran to the scene of the imprisoned victims said that the light of the blazing shanty disclosed to them the figure of a man beating a hasty retreat from the vicinity, but they did not know at the time of the horrible circumstances.

#### THE NAMES OF THE UNFORTUNATE MEN ARE:

Morris McElvinn, Jas. Donahue, Wm. Gullity, Pat. Doyle, Scott Sanderson, Joseph McGee and Fred. Erickson.

They are all fearfully burned, but whether or not any of them are necessarily fatally injured cannot be known as yet.

#### SCOTT SANDERSON,

one of the injured men, was seen this morning, and stated that early in the evening, when he and his men went into the shanty for supper, they expected trouble for an opposing and unfriendly gang of men had gathered before them and had fastened the windows and door of the building. Sanderson and his men, however, soon gained admittance. As soon as they entered the door of the shanty was closed by some one from without and properly fastened and immediately afterwards powder began to be thrown down the chimney. This, however, did not result seriously, and the men who filled the stove with oily waste in order to make the chimney (a common stovepipe) so hot that those above could not approach it. Those without then resorted to pouring oil in the chimney, and the room was immediately filled with flames. None of the men, it is now thought, were burned fatally.

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#### Non-Resident Notice.

No. 602, E.D.—In the Chancery Court of Shelby county, Tenn.—John Johnson vs. M. E. Davis.

It appearing from the affidavits of the defendant, M. E. Davis, and the residents of the State of Tennessee, and it further appearing that said defendant is indebted to the plaintiff for the sum of \$110.00, due by open account, and attachment having been issued and returned, and it appearing that the defendant is a non-resident of this State, it is therefore ordered, That the plaintiff do appear before the court on or before the first day of March, 1890, and plead, answer or do what he may think proper, and that a copy of this order be published for one week, for three successive weeks, in the Memphis Appeal, this 20th day of January, 1890.

S. J. McDONALD, Clerk and Master.

By U. S. Walsh, Deputy Clerk and Master.

John D. Martin, Sol. for compl't. at

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